

PARKING SURVEY
AND
PROGRAM

CENTRAL BUSINESS DISTRICT

MIDDLETOWN
CONNECTICUT

JUNE, 1953

RAMP BUILDINGS CORPORATION
PLANNING CONSULTANT
230 PARK AVENUE NEW YORK 17, N. Y.

RAMP BUILDINGS CORPORATION

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NEW YORK 17, N. Y.

June 1, 1953

Middletown Parking Authority
City Hall
Middletown, Connecticut

Gentlemen:

Transmitted herewith is our report upon parking conditions in the central business district of Middletown, together with a recommended program of off-street parking development.

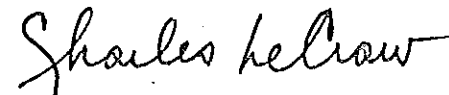
Actual field studies of traffic conditions show an unsatisfied demand of 2,002 parkers.

An immediate program is recommended which will provide 778 spaces at an estimated cost of \$675,000. A secondary program to provide 468 spaces is also included.

Annual gross income from the immediate program has been estimated at \$47,613, and is adequate to repay a 30 year bond issue of \$675,000. A pledge of approximately \$5,729 from curb parking meter revenue will be required if revenue bonds are to be sold.

We appreciate the opportunity to submit the report, and will be pleased to discuss it with you at any time.

Respectfully submitted,
RAMP BUILDINGS CORPORATION



Charles S. LeCraw, Jr.
Assistant Vice President

CSL:IH

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GENERAL

Purpose Of Report

The purpose of this report is to set forth parking demands and to determine what additional off-street parking capacity is required in the central business district of Middletown, Connecticut.

Based upon the determination of parking demands and the measurement of parking habits and characteristics, this report also presents a program of new off-street parking facilities for the central district including their number, location, type and capacity; and their estimated capital cost and earning power.

Population

The population of the City of Middletown, according to the 1950 census was 29,665. The population of the City has increased steadily from 11,731 in 1880 to its present level. The rate of growth has been fairly constant except for the period of 1940 to 1950 during which time the rate of growth was slightly in excess of any other ten year period. Figure 1 shows the population growth of the City for the period 1880 to 1950.

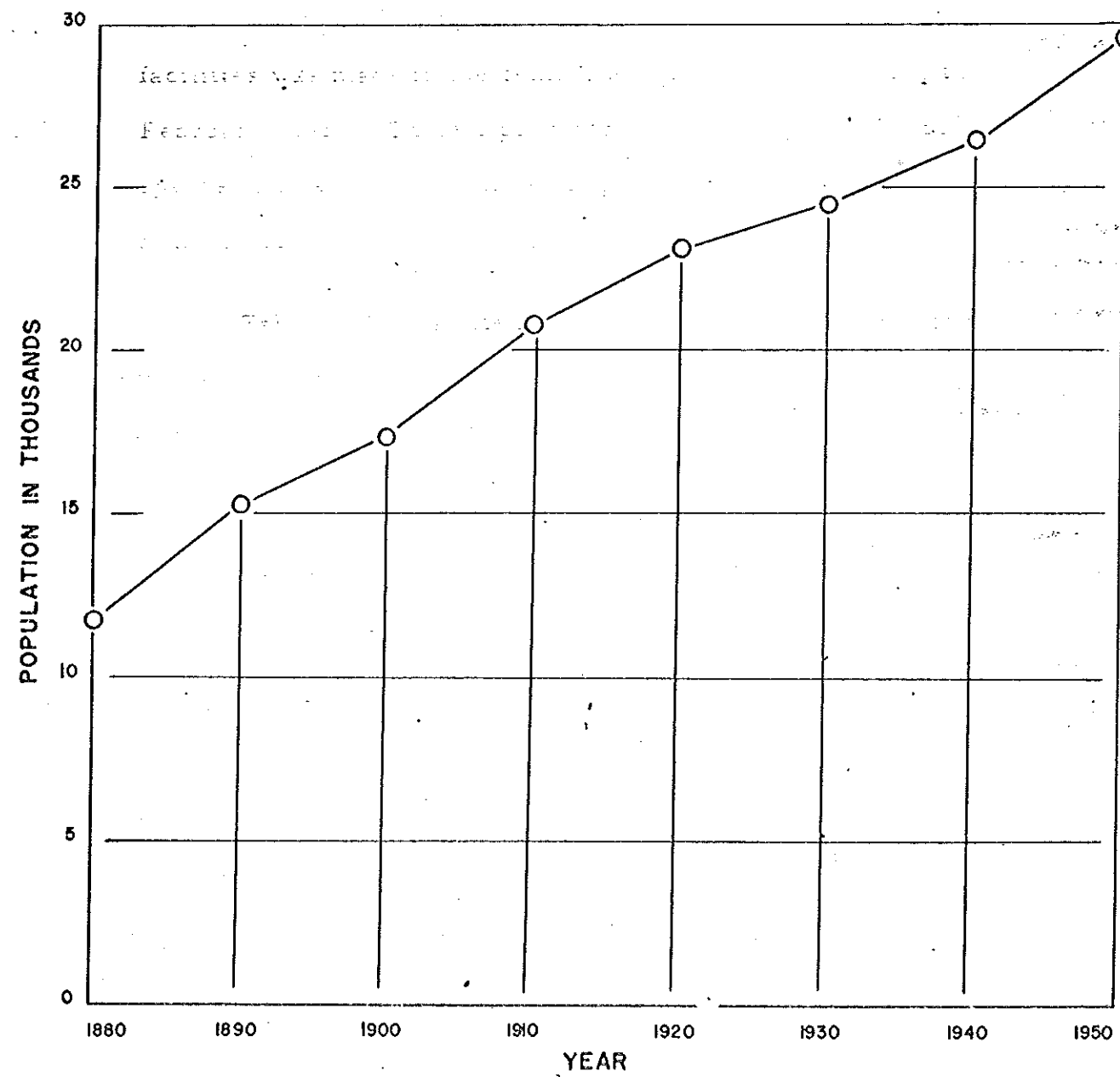


FIGURE I
POPULATION GROWTH
1880 — 1950
MIDDLETOWN, CONN.

INVENTORY OF EXISTING PARKING FACILITIES

An up-to-date inventory of existing curb and off-street parking facilities was made in the central business district during the month of February, 1953. Table 1 presents this information by type of parking spaces, and shows the number of parking spaces available in each block of the Middletown business district.

Table 2 gives an itemized inventory of the off-street parking facilities showing names, address, type of facility, estimated capacity and other miscellaneous information pertaining to the facility. Figure 2 shows the approximate size and location of the various off-street parking facilities.

Within the fifteen blocks comprising the central business district, there are a total of 2,041 parking spaces. Of this total, 869 or 42.6% are curb parking spaces, and 1,172 or 57.4% are off-street parking spaces.

It is important to observe that only 311 off-street parking spaces are classified "public" and as shown in Figure 2, these are distributed among 11 different parking facilities. The large "Bunce" parking lot in block 12 is classified as a customer parking facility of which there are a total of 294 spaces in the central district and 567 spaces throughout the district are classified as private and are not generally available to the motoring public.

These customer and private off-street spaces may not be permanent parking facilities in the future if the owners find more profitable use for the land. Therefore the only permanent parking spaces in the Middletown central district are those located at the curb, and it is questionable whether all these spaces will continue to be available in the future.

TABLE 1
AVAILABLE PARKING SPACES
CENTRAL BUSINESS DISTRICT

Block	CURB SPACES		OFF-STREET SPACES			Total
	Metered	Unmetered	Private	Customer	Public	
1	10	15	20	0	0	45
2	18	11	5	0	0	34
3	41	4	12	35	40	132
4	66	26	74	0	70	236
5	23	43	126	0	20	212
6	49	33	60	10	85	237
7	30	34	5	5	6	80
8	24	5	55	0	0	84
9	28	40	3	0	0	71
10	23	24	12	15	15	89
11	50	20	68	0	45	183
12	77	6	54	195	0	332
13	28	36	42	6	10	122
14	39	17	0	0	20	76
15	27	22	31	28	0	108
Totals	533	336	567	294	311	2,041
	26.1%	16.5%	27.8%	14.4%	15.2%	100.0%
	869			1,172		2,041
	42.6%			57.4%		100.0%

TABLE 2
OFF-STREET PARKING INVENTORY
CENTRAL BUSINESS DISTRICT
MIDDLETOWN, CONNECTICUT

Block	Name Of Facility, Owner, Operator	Address Of Or Access To Facility	Type Of Facility	Capacity	Remarks
1	The Connecticut Co.	725 Main Street	Private Lot	20	"Parking prohibited except by employees of The Connecticut Co."
2	-	631 Main Street	Private Lot	5	-
3	T & T Sunoco Station	569 Main Street	Public Lot	15	50¢ all day; 50¢ overnight; customers mainly.
3	Keitel & Erbal Atlantic Station	567 Main Street	Public Lot	25	50¢ weekly (customers mainly).
3	Middletown Fire Dept.	533 Main Street	Private Lot	12	Fire Dept. personnel.
3	A & P	Main Street	Customer Lot	35	"This lot is not available for free parking between the hours of 9 PM and 8 AM."
4	Washington Parking Lot (?)	Washington Street	Public Lot	40	50¢ all day; 50¢ overnight.
4	Berkeley Motor Co.	111 Washington St.	Public Lot	30	50¢ all day.
4	Montgomery Ward & Co.	Washington Street	Private Lot	10	Customers and employees.
4	Enterprise	Washington Street	Private Lot	6	Employees.

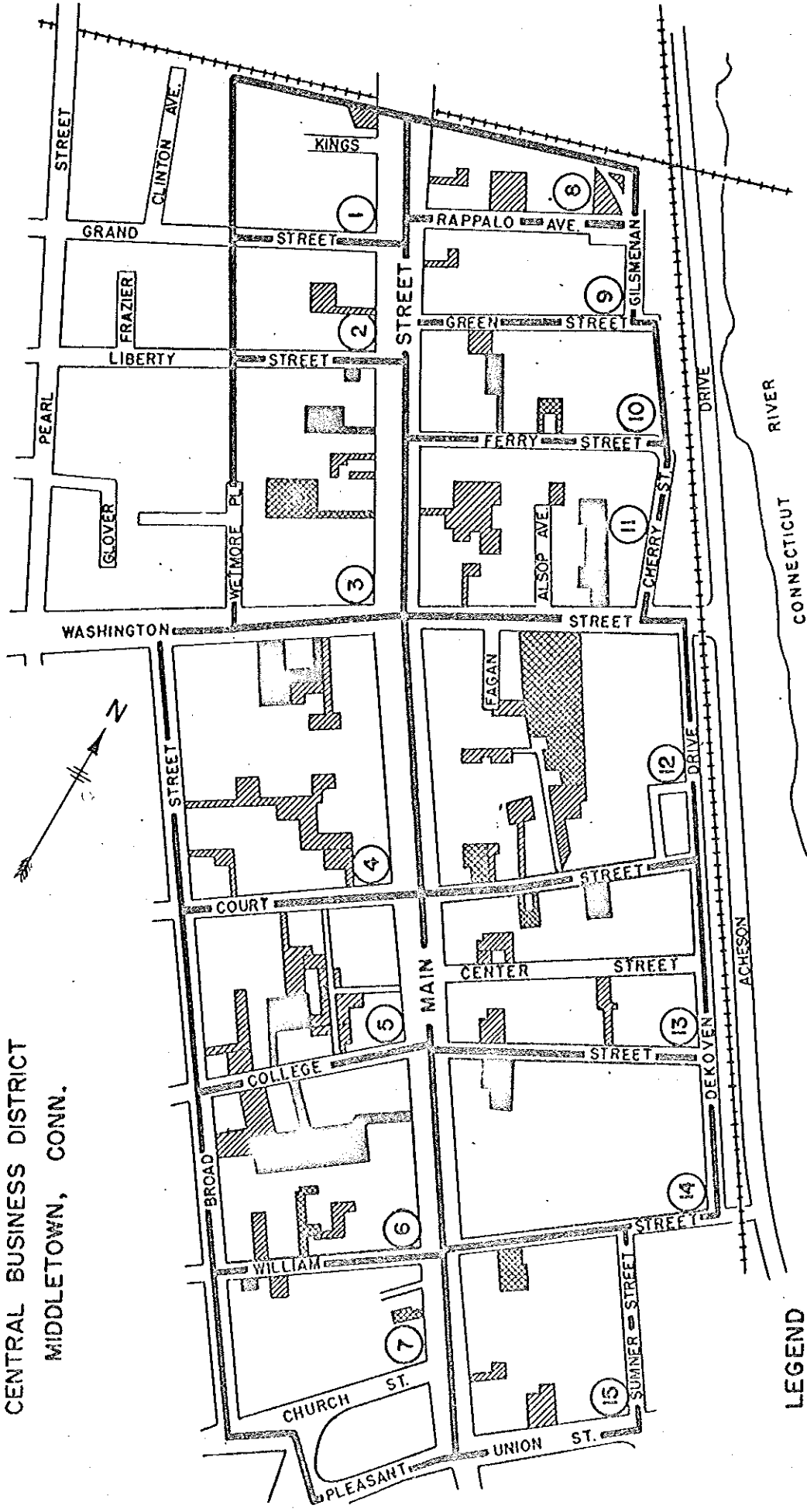
<u>Block</u>	<u>Name Of Facility, Owner, Operator</u>	<u>Address Of Or Access To Facility</u>	<u>Type Of Facility</u>	<u>Capacity</u>	<u>Remarks</u>
4	Middletown Savings Bank (?)	Court Street	Private Lot	18	"No parking in this yard - all spaces assigned."
4	Middlesex Mutual As- surance Company	Court Street	Private Lot	10	-
4	-	Broad Street	Private Lot	30	-
5	Loyal Order of Moose	189 Court Street	Private Lot	16	-
5	Middletown Nat'l. Bank	Court Street	Private Lot	12	-
5	City of Middletown	Town Hall-Police Station	Private Lot	42	City employees, city and police cars.
5	Blau's Electric Shop, Inc.	College Street	Private Lot	15	-
5	Farmers & Mechanics Savings Bank	College Street	Private Lot	8	-
5	-	College Street	Private Lot	5	-
5	-	College Street	Public Lot	20	35¢ all day.
5	-	College Street	Private Lot	14	Private parking - inquire 91 Center Street, Ph. 6-2619.
5	Conn. Light & Power Co.	Broad Street	Private Lot	14	-
6	A & A Motor Sales	123 College St.	Public Lot	85	Parking 35¢; weekly & Monthly rates.
6	Page & Warner, Inc.	William Street	Customer Lot	10	"Free parking while shopping at Page & Warner, Inc. - 1 hr. limit."

Block	Name Of Facility, Owner, Operator	Address Of Or Access To Facility	Type Of Facility	Capacity	Remarks
6	-	William Street	Private Lot	10	-
6	Newton Co. (?)	William Street	Private Lot	5	-
6	Southern N.E. Tel. Co.	College Street	Private Lot	45	-
7	Bob & Holly Service Sta.	William Street	Public Lot	6	35¢ all day.
7	Middletown Plate Glass(?)	William Street	Private Lot	5	-
7	Leary's Service Station	71 Main Street	Customer Lot	5	-
8	-	702 Main Street	Private Lot	15	-
8	-	Rapallo Avenue	Private Lot	20	-
8	-	end of Rapallo Ave.	Private Lot	20	-
9	-	654 Main Street	Private Lot	3	-
10	-	Green Street	Private Lot	12	-
10	-	Ferry Street	Public Lot	15	Parking - 25¢.
10	Marino's Bakery & Restaurant	50 Ferry Street	Customer Lot	15	-
11	-	510 Main Street	Private Lot	55	-
11	-	74 Washington St.	Private Lot	5	-
11	Bailey Electronic Lab.	14 Alsop Avenue	Private Lot	8	-

Block	Name Of Facility, Owner, Operator	Address Of Or Access To Facility	Type Of Facility	Capacity	Remarks
11	Cannata Parking Lot	40 Washington St.	Public Lot	45	35¢ all day.
12	-	end of Fagan Ave.	Private Lot	10	-
12	James H. Bunce Co.	Washington Street	Customer Lot	175	50¢ all day; refunded to Bunce customers.
12	-	thru Bunce's Lot	Private Lot	14	-
12	Connell's	Court Street	Customer Lot	15	Parking 75¢ payable at Connell's - customers may redeem tickets same day with all purchases.
12	Bransfield's Restaurant	116 Court Street	Customer Lot	5	Patrons only.
12	-	Court Street	Private Lot	10	-
12	Sons of Italy Society	74 Court Street	Private Lot	20	"Parking for members only".
13	Julius' Grill	97 Court Street	Customer Lot	6	"Free parking to patron's at Julius' Grill".
13	-	Court Street	Public Lot	10	50¢ all day.
13	Phillip J. Stueck, Polish Club	Center Street	Private Lot	7	"For space apply Phillip J. Stueck - Room 1 over Kresge's - also for Polish Club members."
13	-	Center Street	Private Lot	10	-
13	BPOE, No. 771	College Street	Private Lot	17	"Reserved parking 7 AM - 6 PM".
13	Middletown Water Com- mission	College Street	Private Lot	8	-

<u>Block</u>	<u>Name Of Facility, Owner, Operator</u>	<u>Address Of Or Access To Facility</u>	<u>Type Of Facility</u>	<u>Capacity</u>	<u>Remarks</u>
14	-	College Street	Public Lot	20	35¢ all day; weekly or monthly rates; Ph. 6-6697.
15	Linderme & Zurcher Inc.	William Street	Customer Lot	28	"Parking only while shopping at L & Z - all day or night parking strictly forbidden."
15	Messmor Motors	Main Street	Private Lot	6	-
15	Polish National Home	Union Street	Private Lot	25	"Parking for members only".

CENTRAL BUSINESS DISTRICT
MIDDLETOWN, CONN.



LEGEND

- ② BLOCK NUMBER
- PUBLIC LOTS
- CUSTOMER LOTS
- PRIVATE LOTS

SCALE: 1" = 400'

FIGURE 2
EXISTING OFF-STREET
PARKING FACILITIES

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It is an established fact that curb parking is legally permissible only so long as the requirements of moving traffic do not dictate that the street space be used for the latter purpose. However, as traffic volumes increase it is probable that large numbers of curb parking spaces along many of the streets in the Middletown central district must necessarily be eliminated in order to accommodate the increased traffic flow.

PARKING DEMAND - CENTRAL BUSINESS DISTRICT

In order to determine the total demand for parking space in the central district of Middletown it was necessary first to determine the total number of vehicles entering and leaving the district during average business days. A cordón count was made at which time all vehicles entering and leaving the district were recorded by various streets. A representative sample of the drivers entering the district were interviewed to determine the origin of their trips and their destinations within the central district. Such an actual interview of drivers permits the accurate location of required parking areas. From the representative sample of interviews the data was expanded to include the total number of drivers desiring parking spaces in the various blocks of the central district.

During an average eight hour business day from 9 AM to 5 PM, a total of approximately 13,500 passenger, light trucks, heavy trucks and miscellaneous vehicles enter the central business district. Table 3 shows the inbound and outbound vehicles for each 15 minute period of the day during this 8 hours. The maximum accumulation of vehicles is recorded in the central district during the morning hours from about 10 AM to noon, during which time approximately 2,000 passenger cars and light trucks are found in the central district. The maximum inbound passenger car traffic, except for the large inbound movement created at the end of the business day, is found during the period 1 to 1:15 PM when 459 passenger cars and light trucks were counted as entering the central business district. The maximum outbound traffic is from 4:45 to 5:00 PM when 635 cars and light trucks are leaving the central district. Again, this reflects the heavy movement of workers leaving industrial and commercial areas and passing

TABLE 3
MOTOR VEHICLE TRAFFIC
ENTERING & LEAVING BUSINESS DISTRICT

Time Period	PASSENGER CARS & LT. TRUCKS			HEAVY TRUCKS & MISC. VEHICLES			TOTAL TRAFFIC		
	Inbound	Outbound	Accum- ulation	Inbound	Outbound	Accum- ulation	Inbound	Outbound	Accum- ulation
Cars Parked 9 AM			1,810			63			1,873
9:00- 9:15	389	339	1,860	54	38	79	443	377	1,939
9:15- 9:30	312	266	1,906	51	46	84	363	312	1,990
9:30- 9:45	319	295	1,930	36	44	76	355	339	2,006
9:45-10:00	312	261	1,981	31	31	76	343	292	2,057
10:00-10:15	318	274	2,025	39	37	78	357	311	2,103
10:15-10:30	341	313	2,053	31	32	77	372	345	2,130
10:30-10:45	298	287	2,064	41	39	79	339	326	2,143
10:45-11:00	288	337	2,015	27	34	72	315	371	2,087
11:00-11:15	370	382	2,003	46	35	83	416	417	2,086
11:15-11:30	298	317	1,984	21	27	77	319	344	2,061
11:30-11:45	312	397	1,899	39	38	78	351	435	1,977
11:45-12:00 Noon	307	349	1,857	36	33	81	343	382	1,938
12:00-12:15 PM	452	525	1,784	34	46	69	486	571	1,853
12:15-12:30	345	356	1,773	21	21	69	366	377	1,842
12:30-12:45	363	361	1,775	34	29	74	397	390	1,849
12:45- 1:00	398	438	1,735	36	34	76	434	472	1,811
1:00- 1:15	459	482	1,712	42	52	66	501	534	1,778
1:15- 1:30	373	374	1,711	29	46	49	402	420	1,760
1:30- 1:45	345	405	1,651	43	53	39	388	458	1,690
1:45- 2:00	408	370	1,689	49	41	47	457	411	1,736
2:00- 2:15	409	422	1,676	55	44	58	464	466	1,734
2:15- 2:30	334	402	1,608	30	29	59	364	431	1,667
2:30- 2:45	363	408	1,563	43	43	59	406	451	1,622
2:45- 3:00	338	350	1,551	35	40	54	373	390	1,605
3:00- 3:15	423	419	1,555	44	38	60	467	457	1,615
3:15- 3:30	367	390	1,532	34	43	51	401	433	1,583
3:30- 3:45	525	497	1,560	39	33	57	564	530	1,617
3:45- 4:00	476	482	1,554	35	47	45	511	529	1,599
4:00- 4:15	553	584	1,523	36	32	49	589	616	1,572
4:15- 4:30	442	466	1,499	33	28	54	475	494	1,553
4:30- 4:45	589	616	1,472	21	22	53	610	638	1,525
4:45- 5:00	563	635	1,400	25	28	50	588	663	1,450
Totals	12,389	12,799		1,170	1,183		3,559	13,982	

through the central district enroute to their homes.

Figure 3 shows traffic movements into and out of the central district by all streets for the period 9:00 AM to 5:00 PM on an average business day. As would be expected, Main Street from the north carries the maximum two-way traffic with approximately 6,600 vehicles moving in both directions. Main Street on the south of the central district carries approximately 6,000 vehicles in two directions during an average day. Washington Street from the west carries approximately 4,500 vehicles and the remainder of the traffic entering and leaving the central district is distributed fairly evenly among the other streets.

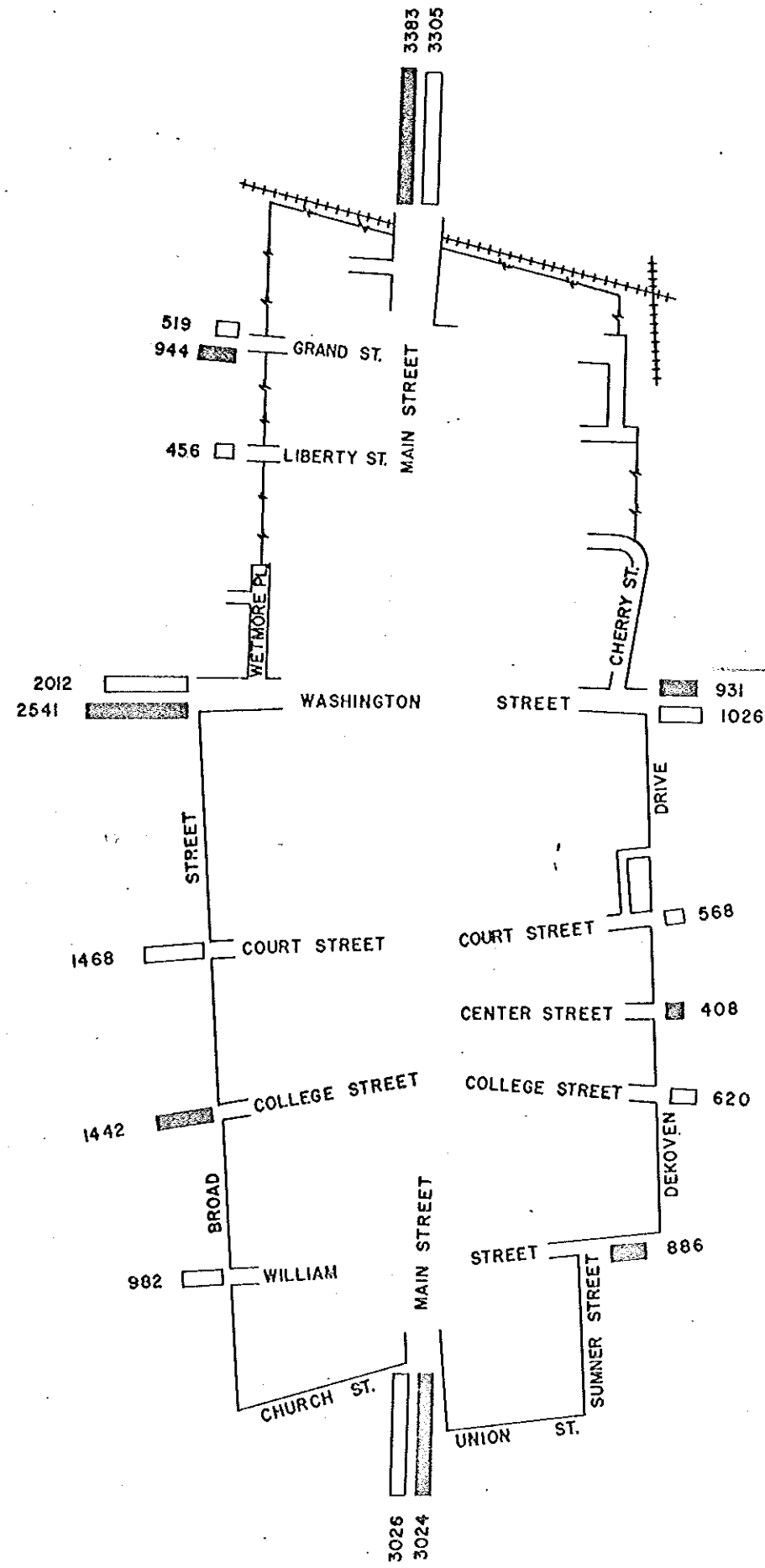
Passenger Car Destinations

Of the total vehicles entering the central district on an average business day, 8,499 or approximately 62% report destinations within the central district. These destinations are shown for the various blocks of the district in column (13) of Table 4. Block 4 bounded by Main, Washington, Broad and Court Streets reports the maximum passenger car destinations, with 1,871 vehicles desiring space in this block on an average day. Block 12 on the south side of Main Street in the same area reports 1,710 passenger car destinations for the second highest number of destinations in the central district.

Unsatisfied Parking Demand

Table 4 presents all the information necessary to derive the unsatisfied parking demand for individual blocks of the central district. Columns (1), (2), and (3) show respectively the number of existing curb spaces, the turnover rate, and the total parkers accommodated at curb

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LEGEND

- TOTAL INBOUND TRAFFIC - 13559
- TOTAL OUTBOUND TRAFFIC - 13982

FIGURE 3
TOTAL INBOUND & OUTBOUND
TRAFFIC

9 A.M. TO 5 P.M.
CENTRAL BUSINESS DISTRICT
MIDDLETOWN, CONN.

TABLE 4
PARKING DEMAND
AVERAGE BUSINESS DAY
9AM TO 5 PM
CENTRAL BUSINESS DISTRICT

Block	CURB SPACES			OFF-STREET SPACES								Total Parkers Accom- modated (12)	Total Destinations (13)	Surplus Or Deficiency (14)
	Num- ber (1)	Turn- over (2)	Parkers Accom- modated (3)	PRIVATE		CUSTOMER			PUBLIC					
				Num- ber (4)	Parkers* Accom- modated (5)	Num- ber (6)	Turn- over (7)	Parkrs Accom- moded (8)	Num- ber (9)	Turn- over (10)	Parkrs Accom- modated (11)			
1	25	4.0	100	20	20	0	-	0	0	-	0	120	25	95
2	29	5.8	168	5	5	0	-	0	0	-	0	173	124	49
3	45	7.0	315	12	12	35	3.0	105	40	1.0	40	472	607	135
4	92	7.8	718	74	74	0	-	0	70	1.0	70	862	1,871	1,009
5	66	6.2	409	126	126	0	-	0	20	1.0	20	555	1,400	845
6	82	5.9	484	60	60	10	1.0	10	85	1.0	85	639	495	144
7	64	2.2	141	5	5	5	1.0	5	6	1.0	6	157	124	33
8	29	7.8	226	55	55	0	-	0	0	-	0	281	37	244
9	68	3.8	258	3	3	0	-	0	0	-	0	261	136	125
10	47	5.5	259	12	12	15	1.0	15	15	1.0	15	301	260	41
11	70	7.4	518	68	68	0	-	0	45	1.0	45	631	533	98
12	83	7.6	631	54	54	195	1.0	195	0	-	0	880	1,710	830
13	64	6.7	429	42	42	6	1.0	6	10	1.0	10	487	508	21
14	56	7.2	403	0	0	0	-	0	20	1.0	20	423	607	184
15	49	4.0	196	31	31	28	1.0	28	0	-	0	255	62	193
Totals	869		5,255	567	567	294		364	311		311	6,497	8,499	3,024
														1,022
														2,002

* Turnover of 1.0 assigned to all private spaces.

spaces within each of the 15 blocks. It is interesting to note that the daily curb turnover rates vary within the central district from a low of 2.2 cars to a high of 7.8 cars per space. The turnovers for individual blocks represent the average of the curb turnovers for all curb parking spaces throughout the block. Curb spaces along Main Street record generally higher turnovers, for instance the curb parking spaces on Main Street between College and Court Street report daily turnovers of better than 11 cars per space.

As would be expected, the side streets record considerably lower turnovers. As a specific example, Center Street between Main Street and Dekoven Drive reports a daily turnover of only 1 car per space for 19 spaces. It is clearly seen that parkers look first for available parking space on Main Street and turn to the side streets only as a last resort. Further evidence of this fact can be seen from an examination of curb parking along the one-way streets crossing Main Street. For example, William Street is one-way to the west and the curb parking spaces immediately west of Main Street show a daily turnover of 4.2 cars per space, representing the parkers who turn from Main Street into William Street seeking parking space. The 17 parking spaces to the east of Main Street on William Street show an average turnover of only 1.5 cars per space per day. These latter spaces are not directly available to motorists traveling along Main Street and can be reached from Main Street only after circling several blocks to return to them. It is clearly seen that the spaces immediately available to a motorist turning from Main Street receive higher use than spaces located a comparable distance from Main Street but on one-way streets leading into Main Street.

The 869 curb parking spaces in the central business district accommodate 5,255 parkers on average business day for an average turnover of approximately 6 cars per space.

Private spaces located throughout the central district serve almost exclusively all-day parkers, and actual studies of these facilities show that their daily turnover is generally less than one car per space. However, in order to be conservative, a turnover of 1.0 has been assigned to all the 567 private off-street spaces and as shown in columns (4) and (5), 567 parkers are accommodated on an average day in these spaces.

Contrary to popular belief, the customer off-street parking spaces in the center of Middletown do not serve a high turnover of parkers. For example, studies of the Bunce Parking Lot show that on an average day this facility records a turnover of 1.2 cars per space. The 294 customer off-street spaces serve a total of 364 parkers as shown in columns (6), (7), and (8).

The public off-street parking spaces do but little better, with a turnover of 1 car per space being recorded for each of these facilities on average business days. Thus as shown in columns (9), (10) and (11) the 311 public off-street spaces serve 311 parkers.

The conclusion to be derived from these studies of off-street parking practices is that almost all the off-street facilities presently existing in the central district of Middletown serve all-day parkers and that little if any off-street parking space is available for shoppers who visit the central district.

Column (12) shows the total parkers accommodated by all available parking spaces both curb and off-street and amounts to 6,497 parkers throughout the entire central business district. Column (13) presents the total destinations for individual blocks as derived from actual interviews of the drivers entering the central district. As stated previously, 8,499 parkers desire parking space within the central business district on an average day. Thus if the 6,497 parkers who find satisfactory parking space are subtracted from the total destinations of 8,499, a theoretical unsatisfied parking demand of 2,002 parkers is derived. This information is shown graphically in Figure 4.

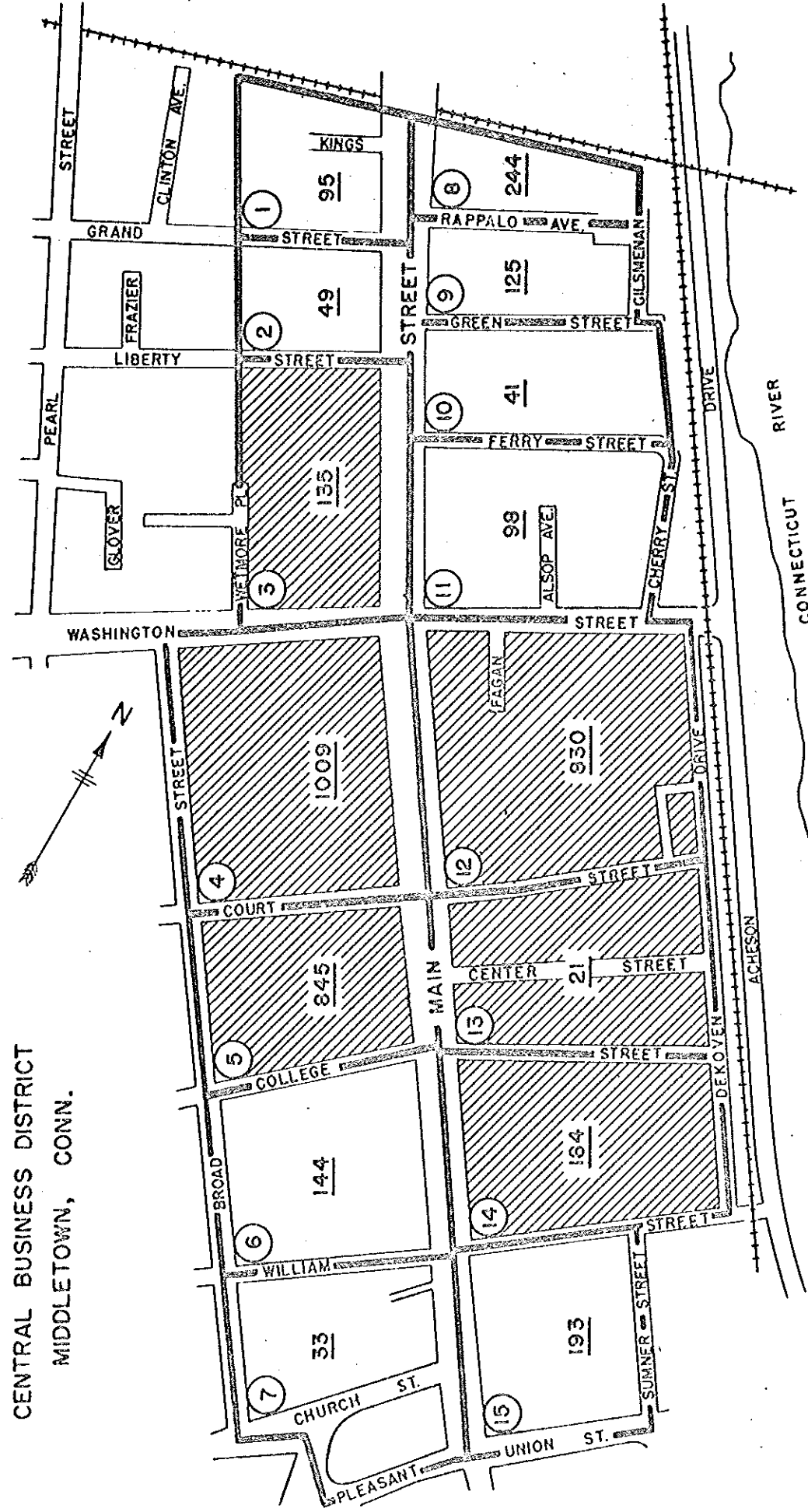
This theoretical derivation presents a minimum figure of unsatisfied parkers and is undoubtedly increased if a factor is employed to estimate the "generated traffic" which may be induced into the central business district upon the provision of adequate off-street parking facilities. Estimates in other similar studies have shown this generated or induced traffic to run as high as 21% of the total parking demand. No such estimates have been included in this report, however, and it is felt therefore, that the estimates of unsatisfied demand are conservative.

Existing Parking Practices

Studies were conducted to determine the use of available parking spaces in the central business district of Middletown. As stated previously in discussion of Table 4 the studies show that the 869 curb spaces accommodate 5,255 parkers on an average day.

Table 5 summarizes the results of sample studies of curb parking practices. A total of 5,392 cars were observed parking in legal and illegal

CENTRAL BUSINESS DISTRICT
MIDDLETOWN, CONN.



LEGEND

- (2) BLOCK NUMBER
- (21) UNSATISFIED PARKING DEMAND 3024 CARS
- (41) EXCESS-SUPPLY OVER DEMAND 1022 CARS

FIGURE 4

UNSATISFIED PARKING

DEMAND - 1953

SCALE: 1" = 400'

RAMP BUILDINGS CORPORATION
NEW YORK, N.Y.

TABLE 5
CURB PARKING PRACTICES
9 AM - 5 PM
AVERAGE BUSINESS DAY
(IN LEGAL SPACES ONLY)

Total Cars Parked (Legal & Illegal Spaces)	5,392
Legal Spaces Observed	754
Total Cars Parked In Legal Spaces	5,084
Turnover - Legal Spaces	6.7
No. Of Non-Violators (non-overtime)	4,353
% of Cars Parked In Legal Spaces	85.6%
No. Of Violators (overtime)	731
% of Cars Parked In Legal Spaces	14.4%
Total Available Legal Space-Hours	6,185.5
Total Space-Hours Used	3,936.5
% of Total Available Space-Hours Used	63.6%
Space-Hours Used By Non-Violators (non-overtime)	2,399.7
% of Space-Hours Used	61.0%
Space-Hours Used By Violators (overtime)	1,536.8
% of Space-Hours Used	39.0%
Average Parking Duration (in legal spaces)	
All Parkers	46 min.
Non-Violators (non-overtime)	33 min.
Violators (overtime)	2 hrs. 6 min.

spaces, of which 5,084 were legally parked. Thus it can be seen that approximately 6% of the observed vehicles were parking in illegal spaces.

Approximately 85.6% of the vehicles parked in compliance with time regulations and 13.4% of the vehicles parked for periods of time in excess of posted regulations.

While the number of vehicles parking overtime is sufficiently serious to warrant study and immediate attention, a more accurate measurement of the seriousness of the overtime parker is afforded by an investigation of "space-hour usage". A space-hour is that amount of time consumed by one vehicle parking for a period of one hour. Thus one vehicle in a single space for ten hours of the day consumes 10 space-hours as compared to the same 10 space-hours being used by ten separate vehicles each parking in the one space for only one hour.

The 14% of the vehicles which park overtime consume 39% of all the space-hours used in the central district on an average day. Thus the ratio of use between the short-time parker and the overtime parker is about 1 to 2.5 or stated another way, for each overtime parker who can be removed from existing curb spaces approximately 2.5 additional short-time parkers can be accommodated.

This analysis should not be taken as criticism of the Police Department, since no studies were made of man power availability or personnel assignment methods used in the Police Department. The condition listed above is not uncommon and has been found in many cities of varying sizes. It is reported however in the hopes that improvement can be obtained by more strict enforcement of overtime parking at existing curb spaces in

order that the parking situation may be improved without the expenditure of additional funds.

Interesting results were obtained from a study of curb parking durations in the central district, as summarized in Table 6. Approximately 54.8% of all curb parkers remain in their spaces for 20 minutes or less and an additional 20.7% of the curb parkers desire to use space between 20 and 40 minutes. Approximately 9.4% of the curb parkers remain parked for periods between 40 minutes and one hour. Thus 84.9% of the curb parkers in the central district of Middletown remain in their spaces for one hour or less, and an additional 9.9% desire to remain in their spaces between one and two hours. Therefore, a program of off-street parking facilities which provides two hour parking would be acceptable to 94.8% of the persons presently using curb spaces in the central business district.

Studies were made of curb parking practices during the period 5 PM to 9 PM on shopping nights. The general parking practices during this period were approximately the same as on average business days with most of the curb parking spaces operating at or near capacity during the period. The average parking time was slightly longer however, although 96% of the curb parkers remained in their spaces for two hours or less, comparing closely to the figure of 94.8% for daytime parkers who desire to park for periods of two hours or less. Again, therefore it can be seen that an off-street parking program providing two hour parking would be completely acceptable to the vast majority of persons desiring parking space on shopping nights.

TABLE 6
PARKING DURATIONS & SPACE HOUR USAGE
(IN LEGAL SPACES ONLY)
(9 AM - 5 PM)

Parking Duration	VEHICLES			SPACE-HOURS		
	Number	% Of Total	Cumulative Percent	Number	% Of Total	Cumulative Percent
20 minutes	2,788	54.8	54.8	929.3	23.6	23.6
40 minutes	1,054	20.7	75.5	702.7	17.9	41.5
1 hr.	477	9.4	84.9	477.0	12.1	53.6
1 hr. 20 min.	267	5.2	90.1	356.0	9.1	62.7
1 hr. 40 min.	154	3.0	93.1	256.7	6.5	69.2
2 hrs.	86	1.7	94.8	172.0	4.4	73.6
2 hrs. 20 min.	63	1.2	96.0	147.0	3.7	77.3
2 hrs. 40 min.	28	0.6	96.6	74.7	1.9	79.2
3 hrs.	37	0.7	97.3	111.0	2.8	82.0
3 hrs. 20 min.	17	0.3	97.6	56.7	1.4	83.4
3 hrs. 40 min.	16	0.3	97.9	58.6	1.5	84.9
4 hrs.	14	0.3	98.2	56.0	1.4	86.3
4 hrs. 20 min.	12	0.2	98.4	52.0	1.3	87.6
4 hrs. 40 min.	5	0.1	98.5	23.3	0.6	88.2
5 hrs.	4	0.1	98.6	20.0	0.5	88.7
5 hrs. 20 min.	7	0.1	98.7	37.3	0.9	89.6
5 hrs. 40 min.	4	0.1	98.8	22.6	0.6	90.2
6 hrs.	4	0.1	98.9	24.0	0.6	90.8
6 hrs. 20 min.	6	0.1	99.0	38.0	1.0	91.8
6 hrs. 40 min.	4	0.1	99.1	26.6	0.7	92.5
7 hrs.	4	0.1	99.2	28.0	0.7	93.2
7 hrs. 20 min.	3	0.1	99.3	22.0	0.6	93.8
7 hrs. 40 min.	3	0.1	99.4	23.0	0.6	94.4
8 hrs.	9	0.2	99.6	72.0	1.8	96.2
8 hrs. 20 min.	18	0.4	100.0	150.0	3.8	100.0
Total	5,084	100.0%		3,936.5	100.0%	

Major Parking Generators

Table 7 lists the most important destinations in the central district as recorded from the driver interviews conducted on average business days. The James H. Bunce Company at 386 Main Street reports 620 passenger car destinations, followed in second place by the Post Office at 291 Main with 461 daily passenger car destinations. It is interesting to note that all 20 of the principal parking generators listed in Table 7 are located on Main Street, thus emphasizing the need for locating additional parking facilities very close to this main business and traffic artery. The 20 principal destinations constitute 48.9% of the total driver destinations in the central district on an average day.

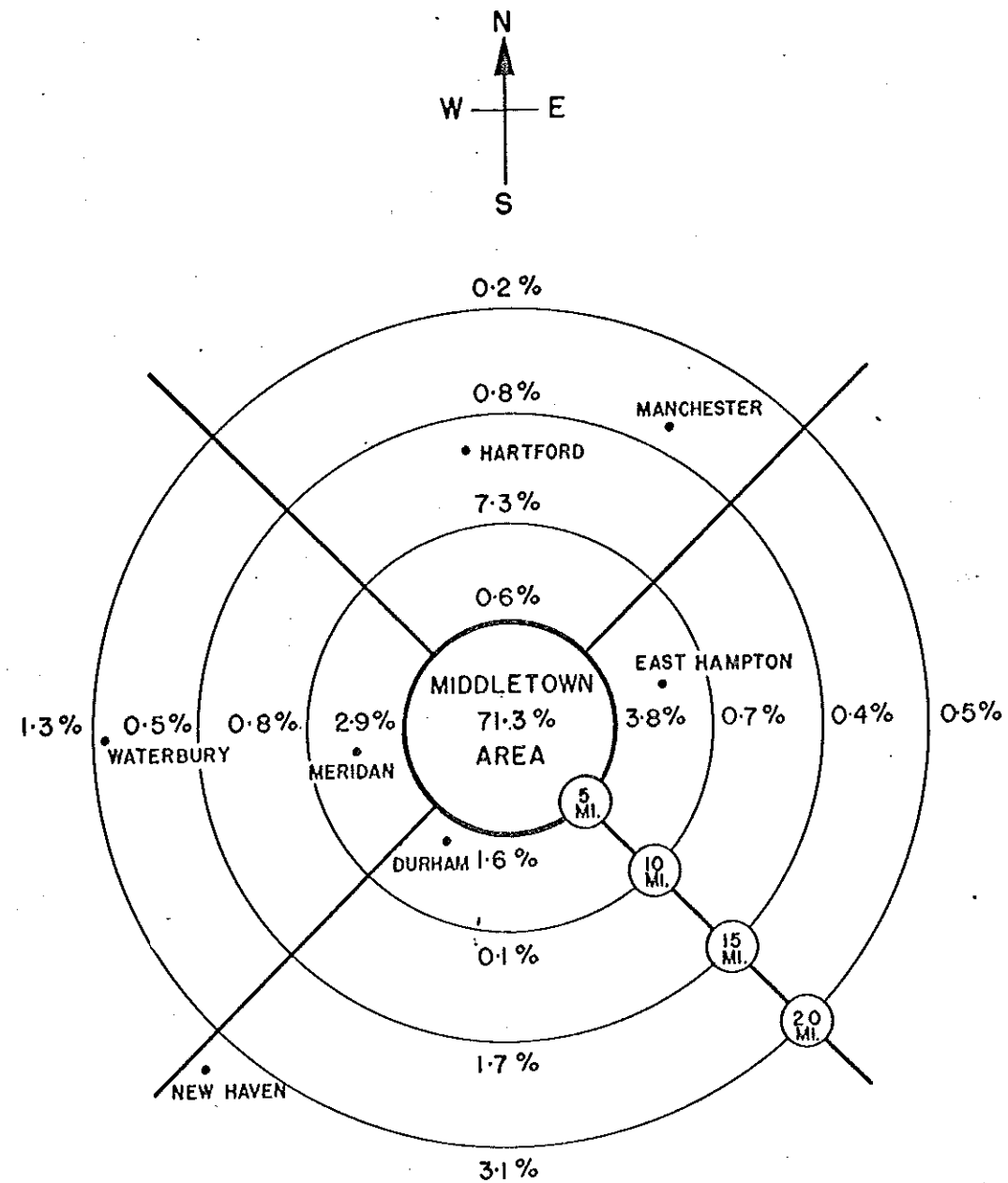
It can be seen that the Banks and Post Office attract a large number of parkers. These parkers are of the very short time type, requiring considerably less than 30 minutes, and often only 3 or 4 minutes to satisfy their needs. Special efforts to accommodate these particular trips will prove advantageous to the entire parking and traffic program.

Origin Of Trip

Interesting results were obtained from a summary of the origin of all motor vehicle trips into the central business district of Middletown. This information is shown graphically by Figure 5. The largest number of trip origins ending in the central district are found within a five mile radius of the center, this area being referred to as "Middletown Area" in Figure 5. Approximately 71.3% of all trips originate in this area. The area immediately to the east of the central district and between five and ten miles away reports 3.8% of all trip origins and the area to the north and between ten and fifteen miles away reports 7.3% of all trip origins. The

TABLE 7
MAJOR PARKING GENERATORS
CENTRAL BUSINESS DISTRICT

<u>Destination</u>	<u>Address</u>	<u>Number Of Cars</u>
James H. Bunce Co.	386 Main	620
U. S. Post Office	291 Main	461
Middletown National Bank	267 Main	353
A & P	515 Main	351
Central National Bank & Trust Co.	363 Main	303
Sears-Roebuck & Co.	343 Main	251
Wrubel's Inc.	392 Main	246
First National Store	405 Main	216
Pelton's Drug Store	108 Main	193
Middletown Savings Bank	315 Main	188
Hartford-Conn. Trust Co.	335 Main	129
Farmers & Mechanics Savings Bank	225 Main	119
City Hall	255 Main	116
Bacon Brothers, Inc.	359 Main	105
F. W. Woolworth Co.	428 Main	101
Mohican Market	526 Main	92
S. S. Kresge Co.	440 Main	88
Popular Food Market	684 Main	84
Montgomery Ward & Co.	423 Main	83
Middletown Press	472 Main	61
Total		4,160
As Percentage of All Destinations		48.9%



ALL OUT-OF-STATE ORIGINS 2.4%

FIGURE 5
DISTRIBUTION OF TRIP ORIGINS
OF PARKERS
CENTRAL BUSINESS DISTRICT
MIDDLETOWN, CONN.

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north quadrant outside the Middletown Area shows a total of 8.9% of all trip origins reflecting the location of the City of Hartford in this quadrant.

RECOMMENDED PROGRAM
OF
PARKING FACILITY DEVELOPMENT

General

The Consultant was directed to recommend a program to guide the development of the required additional off-street parking facilities to serve the central business district. Such a program should be so located and designed as to serve the immediate need for additional parking facilities, as well as to permit eventual expansion of the recommended facilities, either through the enlargement of the properties involved, or through the possible development of parking decks.

Our studies of Middletown indicate that its shopping activity is dependent to a major degree upon automotive transportation. It is the Consultant's belief that the City of Middletown stands at a crossroad with regard to the future development of its central business district. If the city recognizes the importance of automobile transportation and provides sufficient parking facilities, retail and business activity will continue to prosper in the central district. If, on the other hand, the city fails to meet the problem of providing adequate off-street parking facilities, it is our belief that business activity will decline steadily as highway facilities are improved and it becomes progressively easier for shoppers to go to other areas. Experience in many parts of the country has proved that private enterprise will build competing shopping centers located near residential areas in order to take maximum advantage of the lack of parking in downtown shopping areas. Thus a bold program of action must be initiated by the city if it is to retain its place as a regional shopping center.

Based on these beliefs, the Consultant has developed a program to be divided into three phases. The first or "immediate" phase will provide ample parking spaces to accommodate all the unsatisfied parking demand as derived in the Consultant's studies. As stated previously however, experience invariably proves that the creation of attractive, moderately priced off-street parking facilities generates large volumes of additional parking demand, and the Consultant feels that creation of the immediate program as recommended herein will not permanently solve the parking problem. Accordingly, a "secondary" program involving expansion of some parking lots and creation of other new lots is also included. The secondary phase of the program should be undertaken approximately three to five years after creation of the initial phase.

Creation of both the immediate and secondary portions of the recommended program will undoubtedly bring about substantial physical improvements in business establishments in the central district, and accordingly a long range program of parking facilities is desirable in order to keep pace with the growth of the central business district. The program contained herein therefore, presents a long range program of parking areas which the Consultant feels will be strategically located to serve the central district.

Immediate Program

The Consultant recommends the immediate development of three off-street parking facilities to be located in Blocks 4, 5 and 12. As shown in Figure 4, these three blocks show the maximum unsatisfied parking demand at the present time, and the recommended immediate program provides three parking lots strategically located to satisfy this unsatis-

fied parking demand. Locations of the three lots as well as other lots recommended in the program are shown in Figure 6. Parking Lot A is located on Washington and Broad Streets with access to both streets, and will accommodate 175 cars. As stated previously it is necessary that all parking facilities in Middletown have access to at least two streets. Parking Lot A is located in the block with the maximum unsatisfied parking demand, and is conveniently located with reference to both vehicular and pedestrian access.

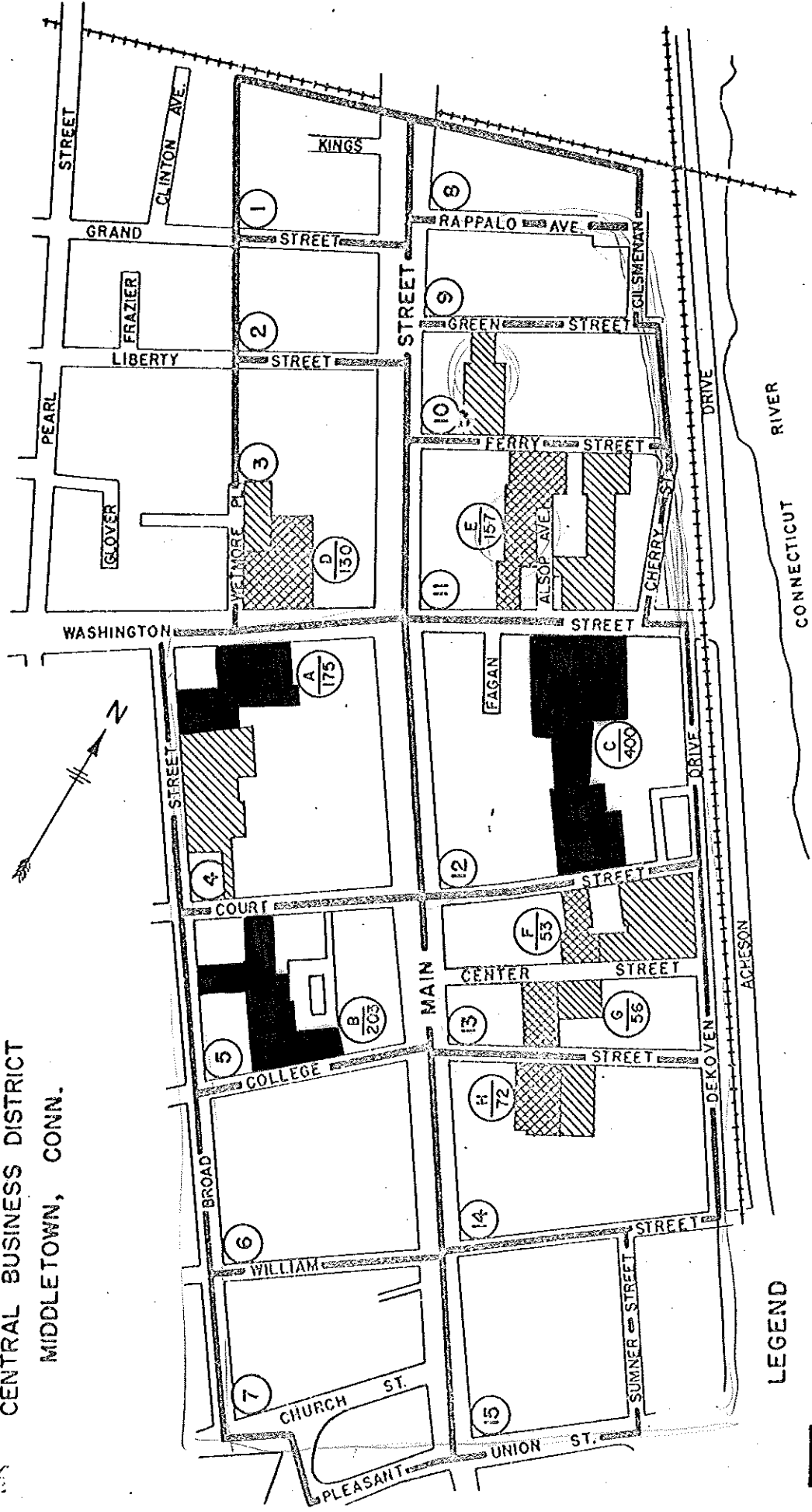
Parking Lot B is located in Block 5 with access to Broad, College and Court Streets, and will accommodate 203 cars. The lot consists of property on both sides and in the rear of the police station, and certain areas presently used for the parking of police and other official vehicles have been integrated with the lot design for access purposes only, although no space has been taken from its present use as official parking in the area.

Parking Lot C, located in Block 12 represents an enlargement of the existing Bunce Parking Lot. The proposed parking lot will extend from Court to Washington Street and is ideally located to serve the unsatisfied parking demand in Block 12.

Secondary Program

The Consultant recommends the eventual development of five additional parking facilities as shown in Figure 6. Parking Lot D is located at the northeast corner of Washington Street and Wetmore Place and will provide 130 spaces. This facility will be well located to serve the unsatisfied demand in the vicinity of the Washington-Main Street intersection.

CENTRAL BUSINESS DISTRICT
MIDDLETOWN, CONN.



LEGEND

IMMEDIATE PROGRAM
TOTAL - 778 SPACES

SECONDARY PROGRAM
TOTAL - 468 SPACES

LONG RANGE PROGRAM

LOT DESIGNATION

LOT CAPACITY (IMMEDIATE AND
SECONDARY ONLY)



FIGURE 6
RECOMMENDED PROGRAM
OF PARKING LOT DEVELOPMENT

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Parking Lot E is located between Washington and Ferry Streets along Alsop Avenue and will provide 157 spaces. This lot will also be ideally situated to serve Main Street shoppers. Parking Lot F will be situated between Court and Center Streets east of Main Street and will accommodate 53 cars. Parking Lot G will be located between Center and College Streets and will accommodate 56 cars, and parking Lot H will be located on the south side of College Street, east of Main Street, providing for 72 cars.

The secondary parking program will provide a total of 468 parking spaces when completed.

Long Range Program

Also included in Figure 6 are locations tentatively selected for long range development as off-street parking. These sites will be subject to wide variations since economic conditions, growth of business activity, land development and many other factors will affect parking needs in the future. Based on present parking and business conditions however, these sites appear to be well situated for future development. Five of the seven long range facilities represent expansion of facilities to be developed in the immediate or secondary programs and the expansion of these facilities can be determined after operating experience has been obtained from the initial development.

Parking Lot Designs

Drawings of the suggested layouts for the parking lots recommended in the immediate and secondary phases of the program are included as Figures 7 through 14 inclusive. All of the lots are recommended for development as metered self-parking lots. Stalls are generally provided

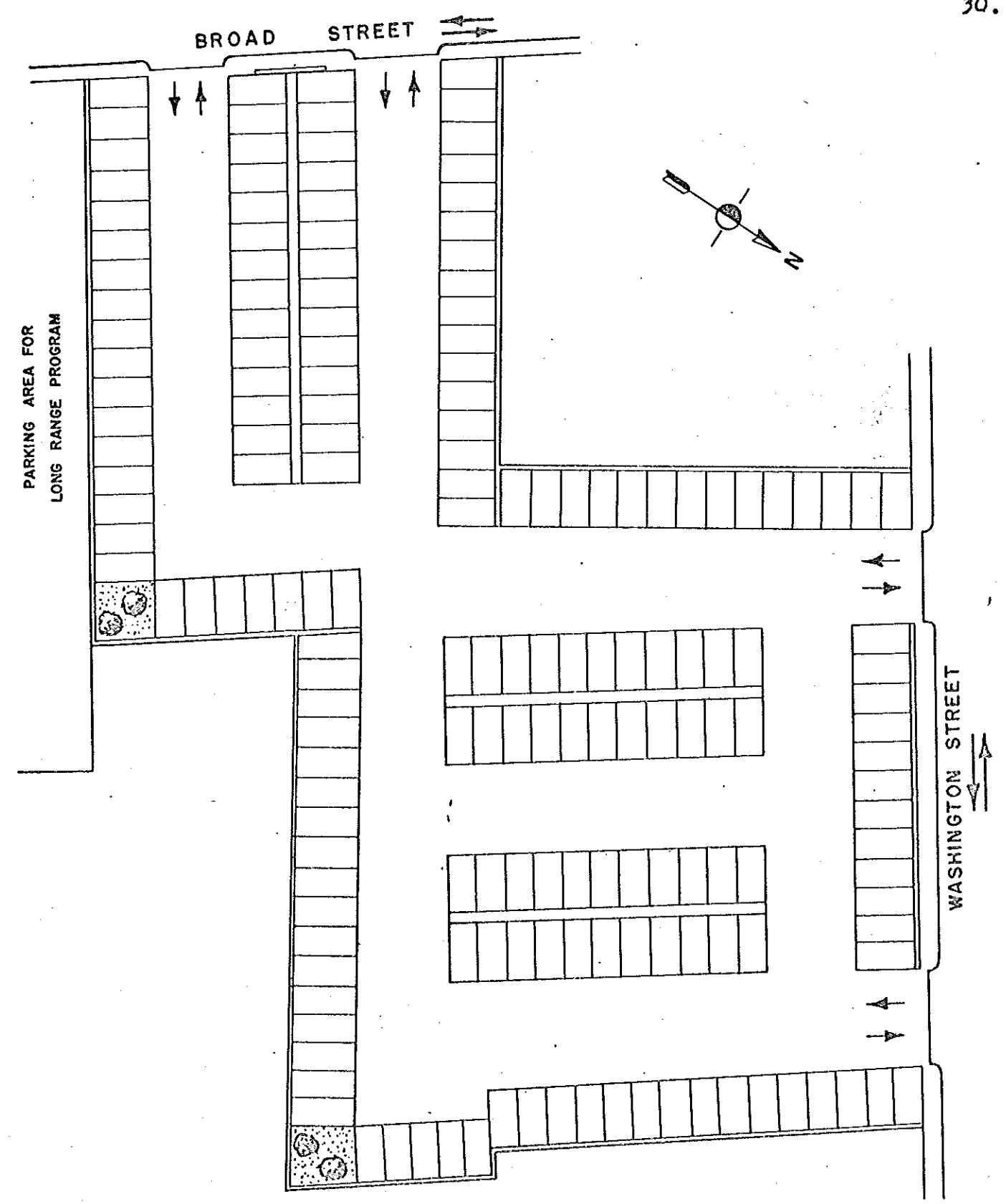


FIGURE 7
PROPOSED LAYOUT
PARKING LOT A
IMMEDIATE PROGRAM
MIDDLETOWN, CONN.

CAPACITY: 175 SPACES
SCALE: 1" = 40'-0"

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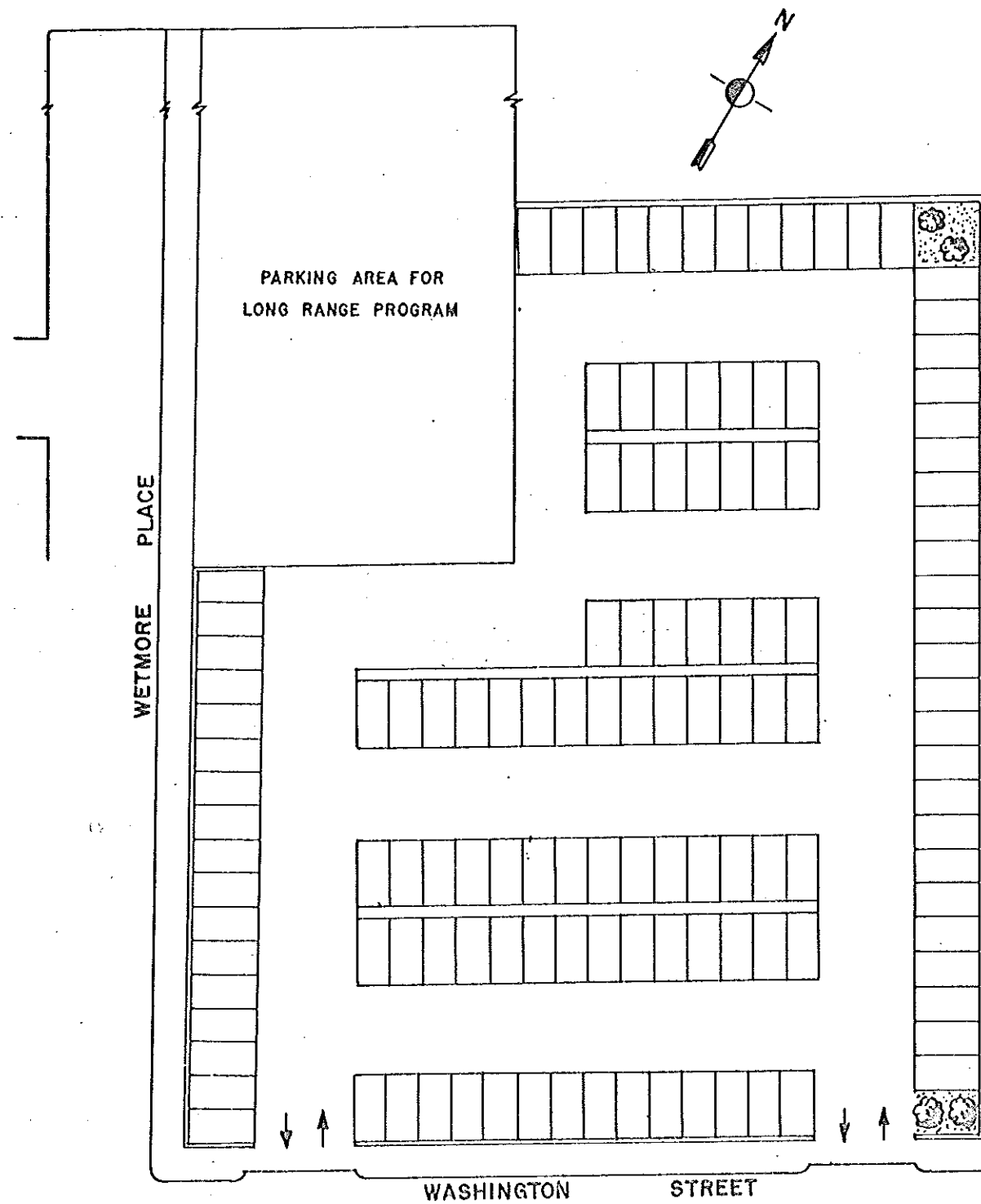


FIGURE 10
 PROPOSED LAYOUT
 PARKING LOT D
 SECONDARY PROGRAM
 MIDDLETOWN, CONN.

CAPACITY: 130 SPACES
 SCALE: 1" = 40'-0"

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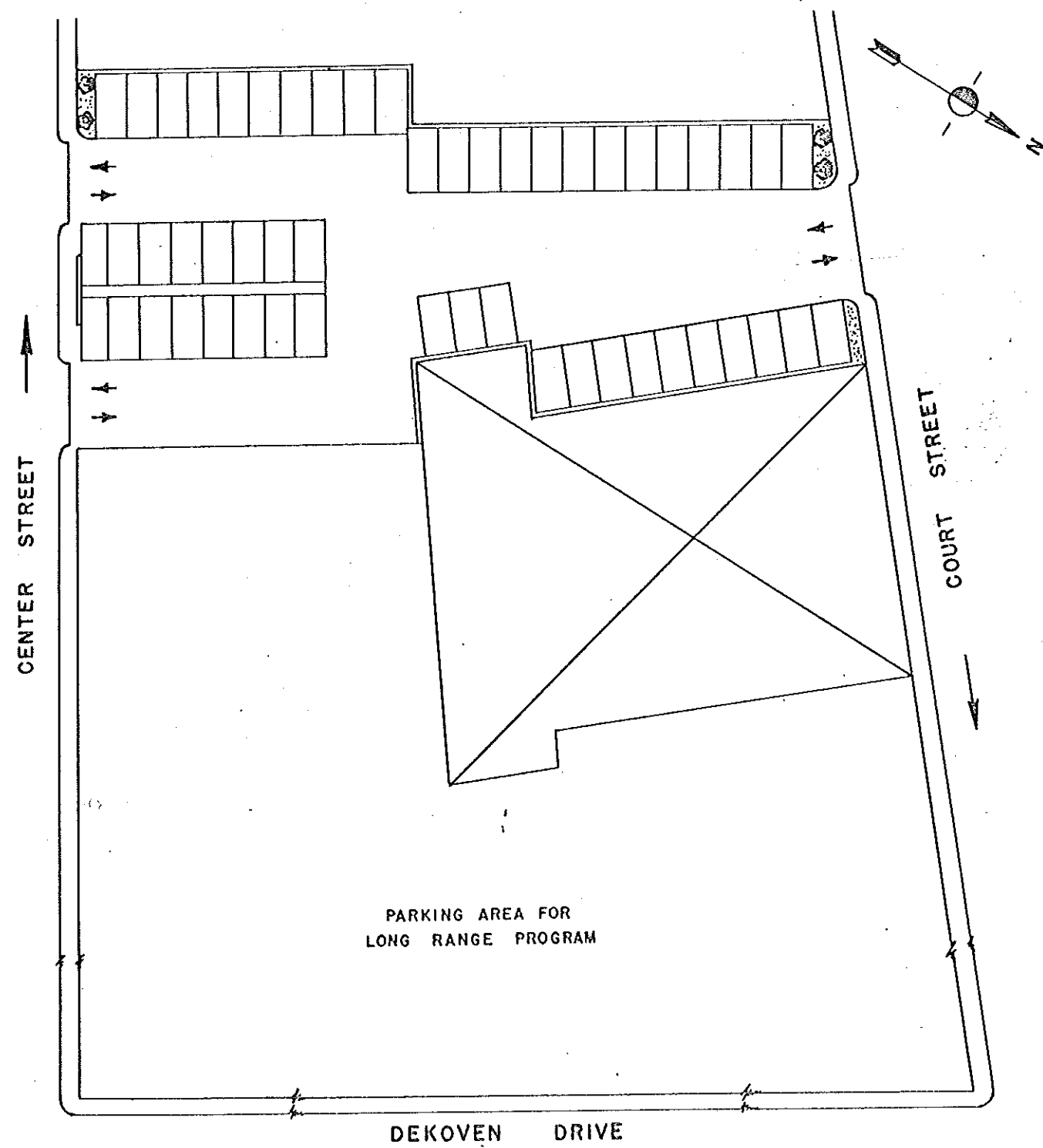


FIGURE 12
PROPOSED LAYOUT
PARKING LOT F
SECONDARY PROGRAM
MIDDLETOWN, CONN.

CAPACITY: 53 SPACES
SCALE: 1" = 40' - 0"

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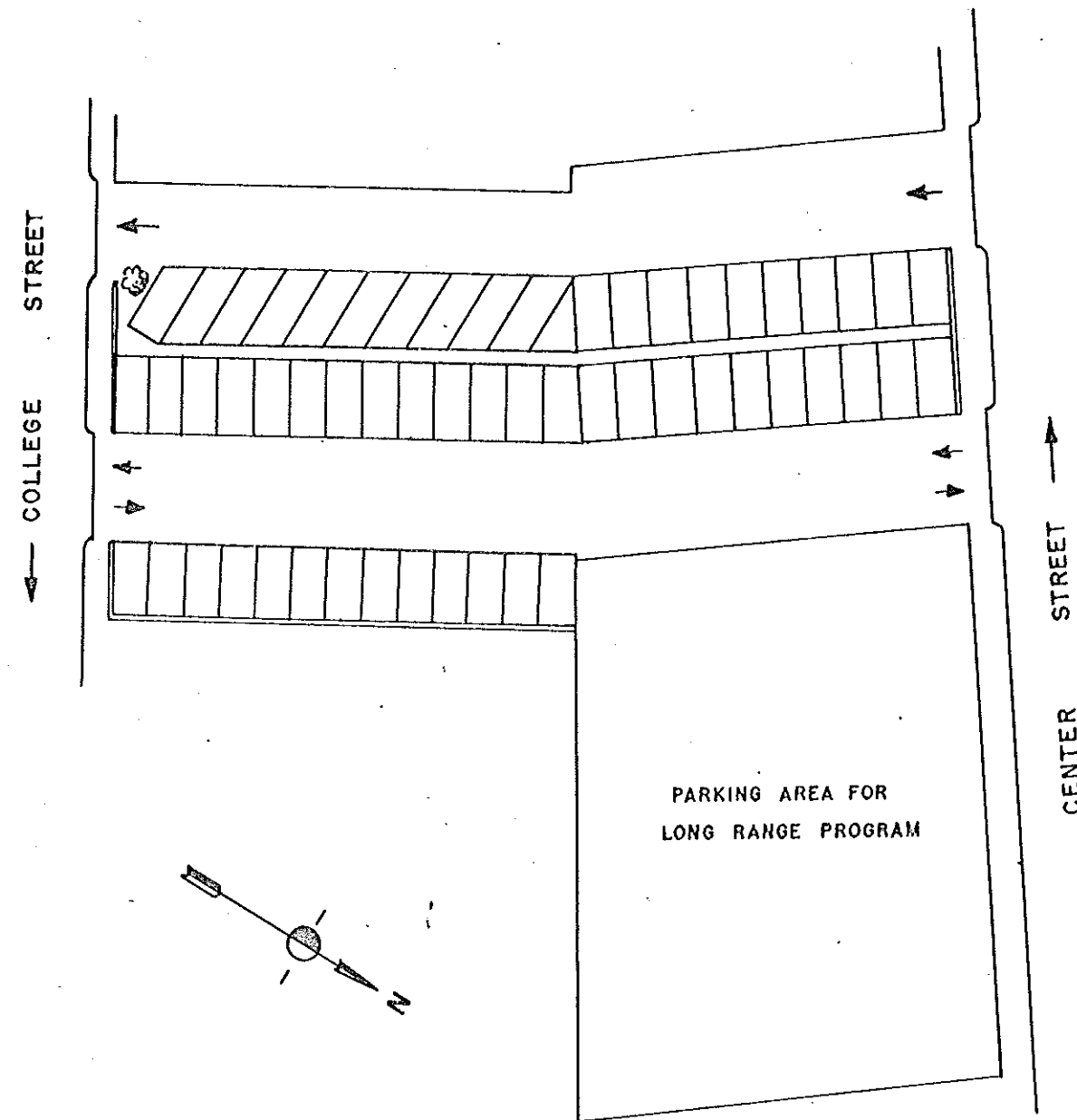
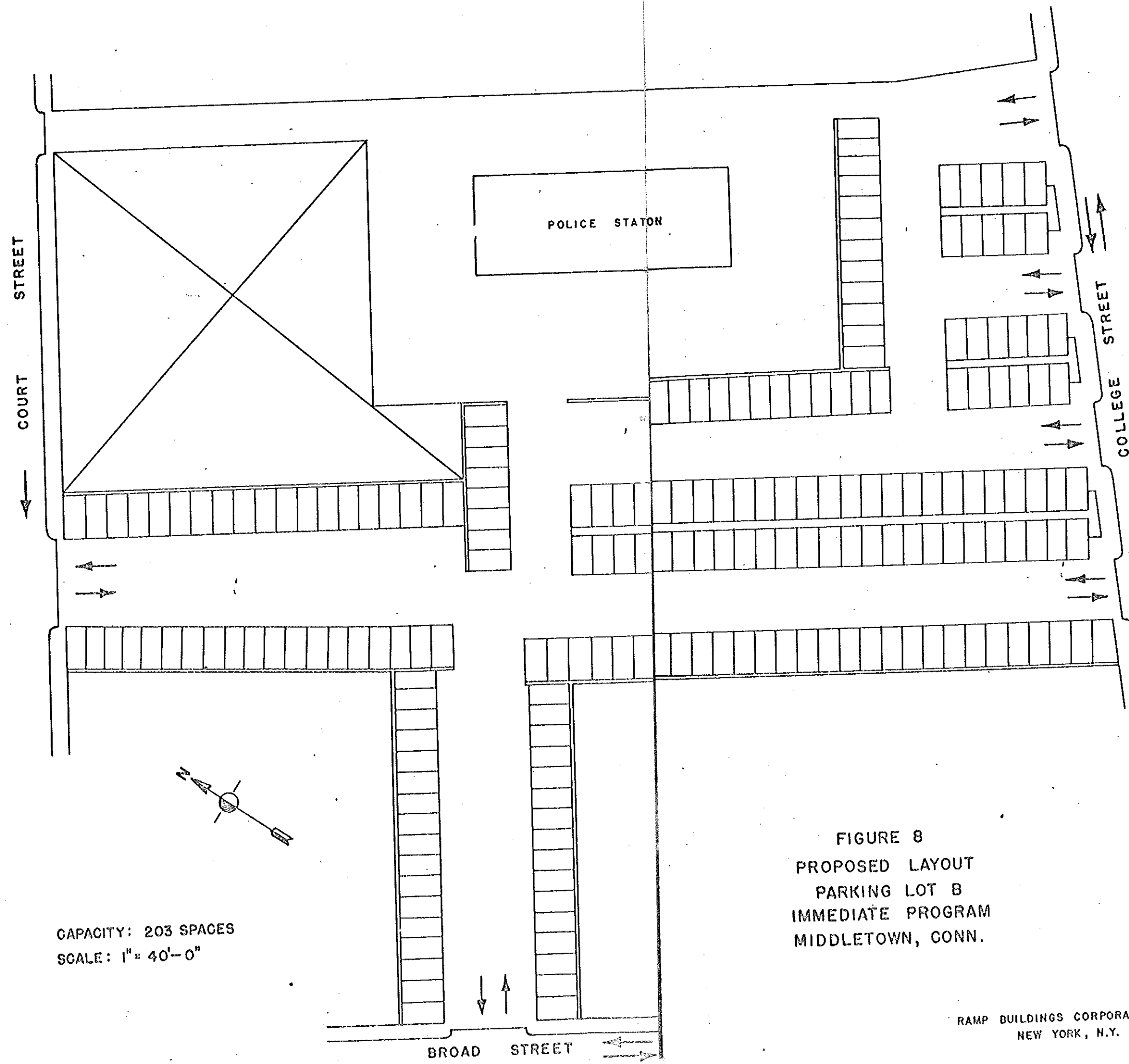


FIGURE 13
 PROPOSED LAYOUT
 PARKING LOT G
 SECONDARY PROGRAM
 MIDDLETOWN, CONN.

CAPACITY: 56 SPACES
 SCALE: 1" = 40' - 0"

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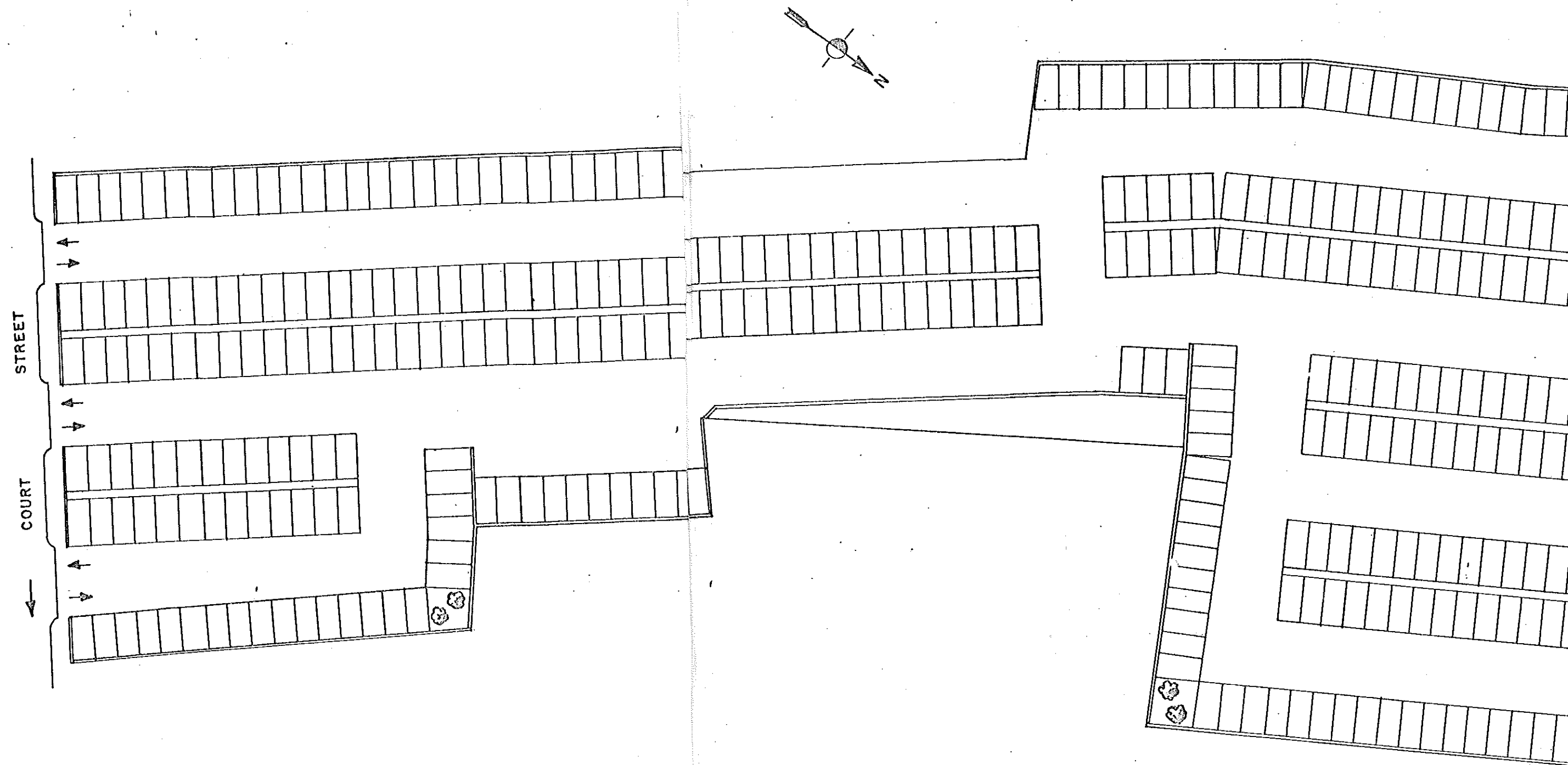


FIGURE 9
PROPOSED LAYOUT
PARKING LOT C
IMMEDIATE PROGRAM
MIDDLETOWN, CONN.

CAPACITY 400 SPACES
SCALE 1" = 40'-0"

RAMP

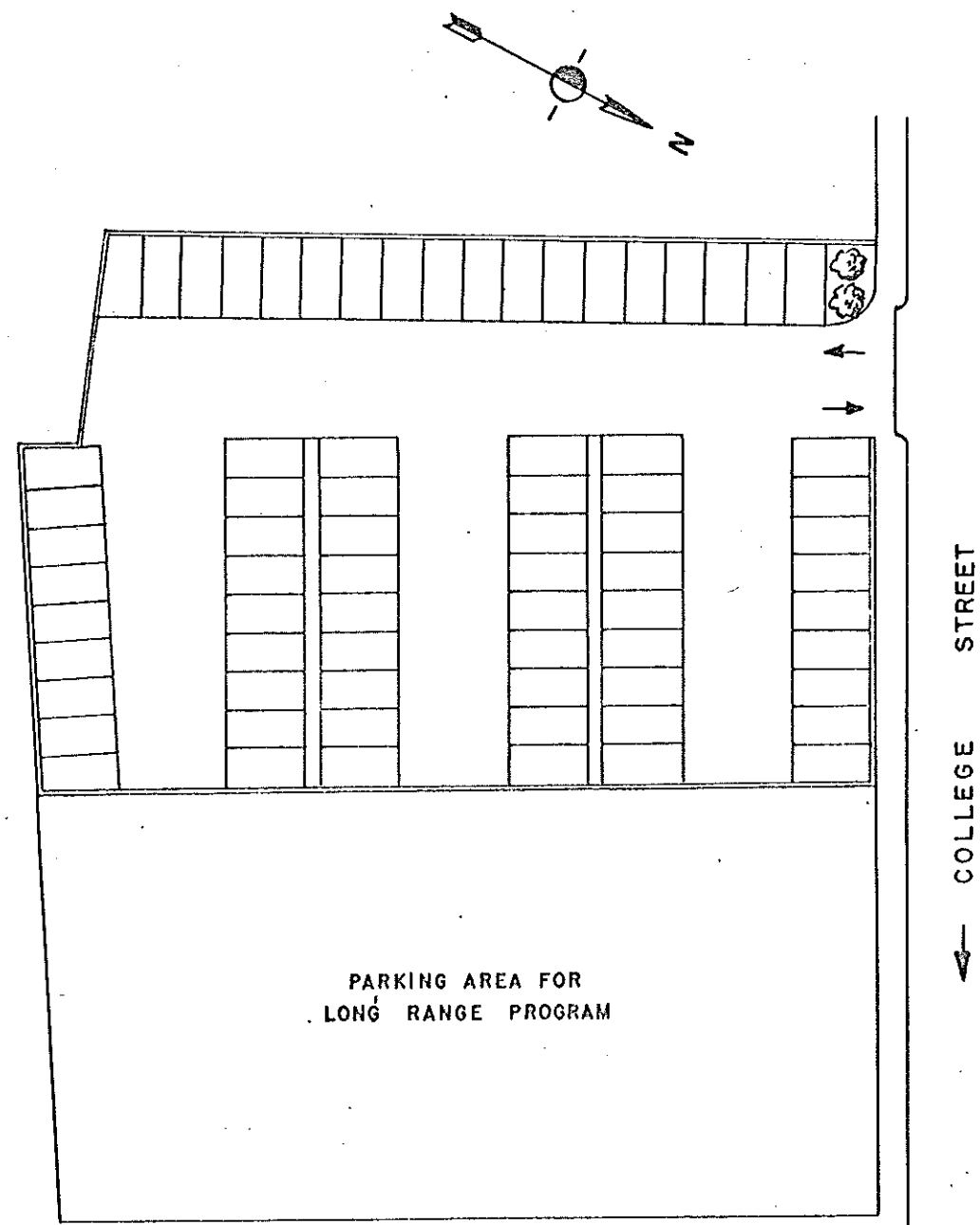


FIGURE 14
PROPOSED LAYOUT
PARKING LOT H
SECONDARY PROGRAM
MIDDLETOWN, CONN.

CAPACITY: 72 SPACES
SCALE: 1" = 40'-0"

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at 90° to an open aisle, permitting any car on the lot to be moved in or out of a stall without the necessity of moving another car. In some cases where dimensions require, parallel or angle parking has been provided. Entrances and exits are provided on at least two streets in all cases.

The lots should be improved with a permanent surface and adequate drainage facilities. A high standard of lighting is most important for night shopping. Fencing may be used around portions of the lots abutting private properties. This requirement should be flexible however, since property owners adjacent to the parking facilities should be encouraged to open rear areas of business establishments in order to provide direct access from the parking facilities to the businesses involved. Such connections will benefit both the parking program and the businesses, since they will reduce the walking distance required from car to shopping area. The city should assume no expense of providing these connections between the parking lots and retail establishments, but in the preparation of final design drawings and specifications this factor should be coordinated wherever possible with the desires and intentions of abutting property owners.

Capital Cost

Table 8 summarizes the estimated capital cost of the proposed immediate parking program. The Table shows land acquisition costs prepared by independent appraisers for all land parcels involved. The appraisals were provided by the city and appear to represent fair market value for all properties involved in the recommended program. Improvement costs include all features of demolition and preparation of the site as well as all construction costs, including necessary lighting and fencing.

TABLE 8
CAPITAL COST AND EARNINGS
PROPOSED IMMEDIATE PARKING PROGRAM

<u>Site Designation</u>	<u>A</u>	<u>B</u>	<u>C</u>	
<u>Site Description</u>	<u>Washington & Broad Sts.</u>	<u>Broad, Court & College Sts.</u>	<u>Washington & Court Sts.</u>	<u>Total</u>
Land Area (Square Feet)	52,283	63,396	122,000	
Car Spaces Provided	175	203	400	778
<u>CAPITAL COST</u>				
Land	\$ 73,300	\$108,560	\$103,040	\$284,900
Improvements	60,000	65,000	145,000	270,000
Meter Equipment	12,250	14,210	28,000	54,460
Contingency Reserve	8,000	9,000	15,000	32,000
Miscellaneous	1,450	1,230	4,960	7,640
Total	<u>\$155,000</u>	<u>\$198,000</u>	<u>\$296,000</u>	<u>\$649,000</u>
Engineering (8%)	\$ 4,800	\$ 5,600	\$ 11,600	\$ 22,000
Legal, Printing & Miscellaneous	<u>1,000</u>	<u>1,000</u>	<u>2,000</u>	<u>4,000</u>
Total Capital Cost	<u>\$160,800</u>	<u>\$204,600</u>	<u>\$309,600</u>	<u>\$675,000</u>
<u>ANNUAL RESERVE</u>				
Daily Turnover	4	4	4	
Space-Hour Use	700	812	1,600	
Parking Rate/Space/Hr.	\$.05	\$.05	\$.05	
Annual Gross Revenue (306 days/year)	\$10,710	\$12,423	\$24,480	\$47,613
Less Expenses (20%)	<u>2,142</u>	<u>2,484</u>	<u>4,896</u>	<u>9,522</u>
Operating Income	<u>\$ 8,568</u>	<u>\$ 9,939</u>	<u>\$19,584</u>	<u>\$38,091</u>

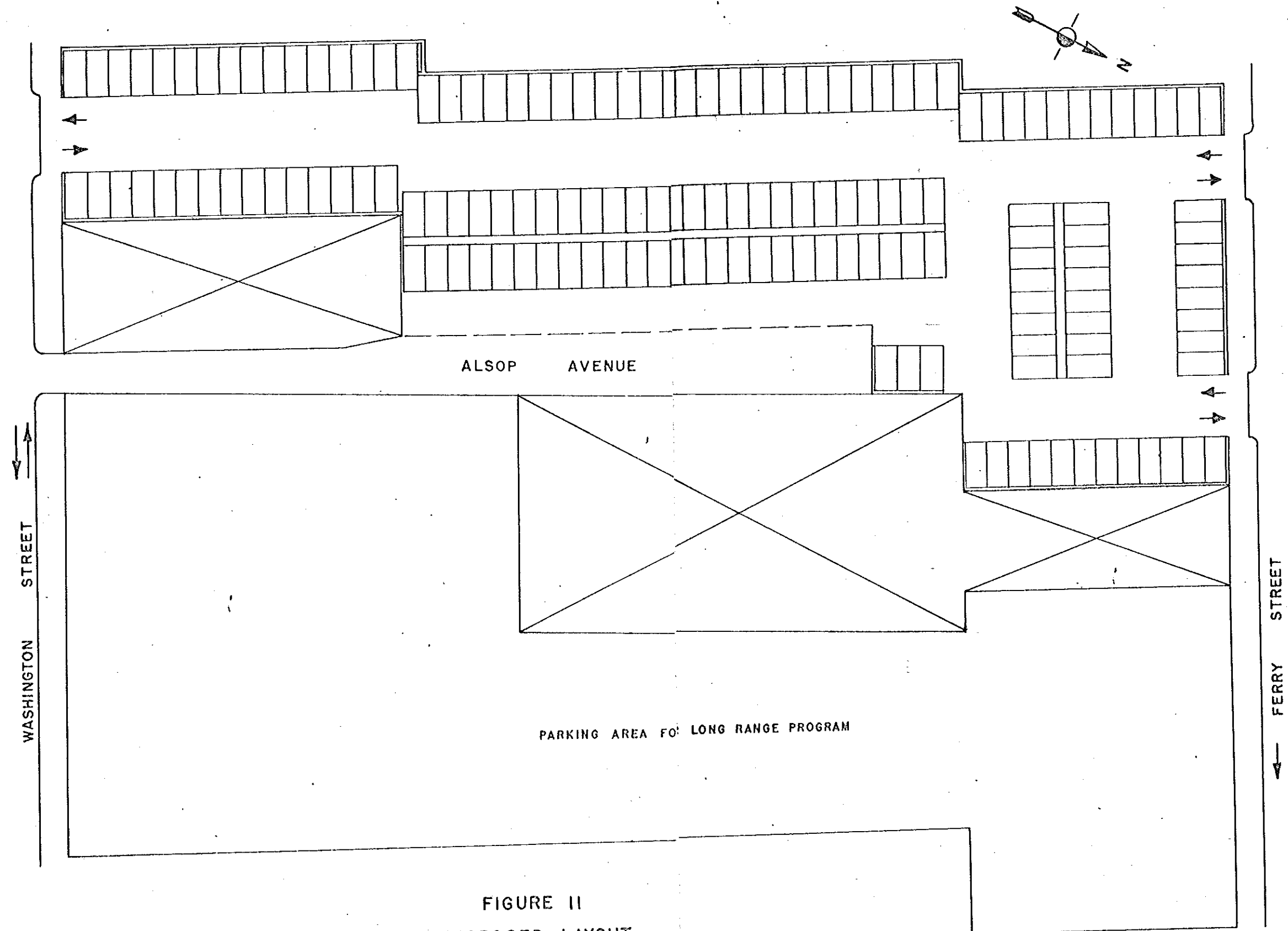


FIGURE II
 PROPOSED LAYOUT
 PARKING LOT E
 SECONDARY PROGRAM
 MIDDLETOWN CONN.

CAPACITY : 157 SPACES
 SCALE : 1" = 40' - 0"

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These costs are based upon prevailing unit costs in the New England area and should be accurate provided economic conditions do not vary substantially between the time of this report and the final arrangement for construction contracts.

Parking meters have been included at a unit price of \$70 per meter, including installation. This is at least 10% above prevailing bid prices in the New England area at the present time. A contingency reserve of \$32,000 has been included and a miscellaneous item of \$7,630 is also shown in Table 8. Thus the total land and improvement costs amount to \$649,000. An item of \$22,000 has been included as engineering charges and represents the cost for the preparation of complete design and construction drawings and specifications and engineering supervision of construction, based upon 8% of the estimated improvement costs. A \$4,000 item for legal, printing and other small miscellaneous charges has been included in the event the program is financed by a revenue bond issue.

The total capital cost will be approximately \$675,000 for the recommended 778 parking spaces or approximately \$870 per parking space provided. Similar programs throughout the country show the prevailing costs for comparable parking facilities to be approximately \$1,000 per space.

Table 9 presents the capital cost as estimated for the secondary parking program. Land for the five recommended parking facilities has been appraised at \$308,020 and will provide 468 parking spaces. Improvement costs are included at prevailing unit prices and meters are also included at a cost of \$70 each. Contingency and miscellaneous items, together with engineering and other minor expenses bring the total

TABLE 9
CAPITAL COST AND EARNINGS
PROPOSED SECONDARY PARKING PROGRAM

<u>Site Designation</u>	<u>D</u> Washington St. & Wetmore Pl.	<u>E</u> Washington, Ferry & Alsop Ave.	<u>F</u> Court & Center Sts.	<u>G</u> Center & College Sts.	<u>H</u> College St.	<u>Total</u>
<u>Site Description</u>	42,000	51,962	15,900	18,682	22,000	150,544
	130	157	53	56	72	468
<u>Land Area (Square Feet)</u>						
<u>Car Spaces Provided</u>						
<u>CAPITAL COST</u>	\$ 58,900	\$122,330	\$52,130	\$49,690	\$24,970	\$308,020
	50,000	55,000	20,000	20,000	25,000	170,000
Land	9,100	10,990	3,710	3,920	5,040	32,760
Improvements	6,000	10,000	5,000	5,000	2,500	28,500
Meter Equipment	1,000	1,680	1,160	1,390	490	5,720
Contingency Reserve	\$125,000	\$200,000	\$82,000	\$80,000	\$58,000	\$545,000
Miscellaneous						
Total	\$ 4,000	\$ 4,400	\$ 1,600	\$ 1,600	\$ 2,000	\$ 13,600
<u>Engineering (8%)</u>	700	700	600	700	700	3,400
<u>Legal, Printing &</u>						
<u>Miscellaneous</u>	\$129,700	\$205,100	\$84,200	\$82,300	\$60,700	\$562,000
<u>Total Capital Cost</u>						
<u>ANNUAL REVENUE</u>	4	4	3	3	3	
	520	628	159	168	216	
Daily Turnover	\$.05	\$.05	\$.05	\$.05	\$.05	
Space-Hour Use						
Parking Rate/Space/Hr.	\$7,956	\$9,608	\$2,432	\$2,570	\$3,304	\$25,870
Annual Gross Revenue						
(306 days/year)	1,591	1,921	486	514	661	5,173
Less Expenses (20%)	\$6,365	\$7,687	\$1,946	\$2,056	\$2,643	\$20,697
<u>Operating Income</u>						

capital cost to \$562,000 for the secondary program. This represents a substantially higher unit cost per car space of approximately \$1,200. This is to be expected however since the Consultant has deliberately chosen the more economical locations for inclusion in the immediate program.

Annual Earnings

Parking fees are recommended as five cents per hour with a maximum parking time limit of two hours permitted in the lot. As stated previously in the discussion of Table 4, the 869 curb parking spaces in the central district record an average daily turnover of 6 cars per space. It is the Consultant's belief that the parking lots recommended in the immediate program will be conveniently located to the business center, and that they will attract the same type of parkers presently using the curb spaces and that the parking characteristics recorded in these lots will be approximately those presently found at the curb. In order to be conservative in the estimate of income, however, the average turnover of 6 has been reduced to a daily turnover of 4 cars per space. As shown in Table 8, the daily turnover of 4 cars per space for 306 days per year provides annual income of \$47,613. It should be noted that no income has been estimated for night parking since this matter is a subject for local study and decision. In many cities it is felt that no charge should be made on parking meters for shopping nights in order to attract shoppers into the central district, and if this is the case, the income estimate as shown in Table 8 will remain unchanged. If however, the decision is made to charge for parking on shopping nights, the annual gross revenue can be substantially increased.

A 20% deduction in gross revenue has been made to represent

operating expenses of enforcement, collection and maintenance. If this figure is applied, an operating income of \$38,091 is derived.

Similar estimates have been made for the secondary program with two of the lots having an estimated daily turnover of 4 cars and the remaining 3 lots having daily turnovers estimated at 3 cars per space. Gross revenue of \$25,870 is shown in Table 9 with \$5,173 deducted as operating expenses, providing an operating income of \$20,697.

Proposed Financing - Immediate Program

Two methods of financing the proposed parking program are available to the City. Under the first method, a general obligation bond issue would serve as the means of securing the funds, and the City's general credit pledged to repayment of the bonds. The lowest possible interest rate would be obtained if this method of financing were employed, but all taxpayers in the City would be required to assume a portion of the burden of repaying the bonds.

The second financing method would involve the issuance of revenue bonds, not involving the general credit of the City, but payable only from the parking lot income derived from the program, and from some portion of curb parking meter revenue as may be required. Since the investor's risk is greater with a revenue bond than with a general obligation bond, a higher interest rate must be paid. Revenue bond financing has the major advantage, however, of leaving undisturbed the City's borrowing power for other public improvements such as schools, sewers, and streets.

It is recommended that the City of Middletown issue revenue

bonds in the amount of \$675,000 to develop the immediate program as recommended in this report.

Table 10 shows a summary of the information needed to develop the financing details of a revenue bond issue. Due to the speculative nature of revenue bonds, investors usually require a minimum debt service coverage of 1.5 times before a revenue bond issue is considered to be saleable. Gross revenue from the proposed immediate program, without deduction of any operating expenses, will provide a coverage of 1.34. This will require existing City departments to operate and maintain the lots without being reimbursed from the lot revenues. In addition to the gross revenue, a minimum annual pledge of \$5,729 from curb parking revenue will probably be required. It should be emphasized that the consultant's estimates show that this pledged amount will not be required to retire the bonds, and that the estimated gross revenues will present a surplus of approximately \$12,000 per year after debt service. The pledge is necessary, however, in order to insure the investor against diminished income due to gasoline rationing or a major economic recession.

If 20% of the gross revenue is used as payment for operating expenses, the debt service coverage is reduced to 1.07, and a pledge of \$15,248 is required to provide a coverage of 1.50 times.

The Consultant cannot recommend whether existing city departments should be reimbursed for services rendered in connection with the parking program. The Consultant has not reviewed the final legislation establishing a Parking Authority and permitting issuance of revenue bonds. However, the legislation as submitted provided that revenues should be

TABLE 10
PROPOSED FINANCING
IMMEDIATE PROGRAM

<u>PARKING LOT INCOME</u>	
Gross Income (Table 3)	\$47,613
Debt Service Coverage for 3-1/4%, 30 Year Revenue Bond	1.34
<u>OPERATING EXPENSES</u>	
Assumed as 20% of Gross Income	\$ 9,522
<u>OPERATING INCOME</u>	
After Deduction of Operating Expenses	\$38,091
Debt Service Coverage for 3-1/4%, 30 Year Revenue Bond	1.07
<u>ANNUAL DEBT SERVICE</u>	
3-1/4%, 30 Year Revenue Bond	\$35,559
<u>MINIMUM DEBT SERVICE COVERAGE</u>	
<u>REQUIRED TO ISSUE REVENUE BONDS</u>	1.50
<u>CURB PARKING METER REVENUE PLEDGE</u>	
<u>REQUIRED TO ISSUE REVENUE BONDS</u>	
If Lot <u>Gross</u> Income Pledged to Bonds	\$ 5,729
If Lot <u>Operating</u> Income Pledged to Bonds	\$15,248

used first for payment of bonds and establishment of reserves, and second for maintenance and operating costs. If this priority is retained in the final legislation, a smaller pledge of curb meter revenues will be required.

Management Consultant

To advise the Parking Authority in its administration, and to audit the revenues and operations of the facilities with particular reference to performance of the covenants of the bond indenture, it is recommended that an independent consulting organization be employed. This is customary practice in connection with revenue bond issues. The organization so employed should be familiar with the development and operation of off-street parking facilities of all types. This consultant should be required to make inspections and reports to the parking authority on the operation of the municipal parking system, both curb parking and off-street facilities, and the economic and financial status of the parking program. In addition, the consultant should be qualified to recommend minor changes in physical design, methods of operation or enforcement, removal of curb parking meters, substitution of time limits at parking meters, and other technical matters related to the operation of the parking system. The consultant so retained should be on call from the Parking Authority at times when problems of operation may arise and in addition the consultant should be required to make semi-annual inspections and reports of the operation of the parking system.

An annual fee of \$2,400 is estimated to be sufficient to retain the services of a qualified organization. A suggested outline of such consultant's functions is listed below:

A planning and operating consultant familiar with the design, construction, and operation of off-street parking facilities of all types shall make inspections of the parking system facilities at intervals of not less frequency than six (6) months, and shall report in writing to the Parking Authority upon the operation of the system, the maintenance of the property, the efficiency of the operation, the proper and adequate keeping of books of account and records, the adherence to budget and budgetary control provisions, the adherence to all the provisions of the resolution pursuant to which the bonds are issued, and all other things having a bearing upon the efficiency and profitable operation of the system, as the consultant shall deem proper.

The consultant shall make recommendations as it may deem proper as to parking rates, operating procedures, and the making of repairs, renewals, replacements and betterments.

Within ninety (90) days after the close of each sinking fund year, and within two hundred seventy (270) days after the close of each sinking fund year, the consultant shall prepare and render a comprehensive report to the Parking Authority, which report shall contain therein, or be accompanied by a certified copy of an audit of the preceding year's business; and shall report upon the operation of the parking system during the preceding year, the maintenance of the property, the efficiency of the management of the property, the proper and adequate keeping of books of account and records, the adherence to budget and budgetary control provisions, the adherence to all the provisions of the resolution pursuant to which the bonds are issued, and all other things having a bearing upon the efficiency and profitable operation of the system, as the consultant shall deem proper.

The consultant shall at all times have access to the books of account and records of any and all departments, bureaus and offices of the Parking Authority and the City appertaining to the property, business, revenues, operation, maintenance, and finances of the parking system with reference to both on-street and off-street parking facilities.

New City Hall Parking Lot

As this report is being prepared, discussions are underway which may result in the construction of a new City Hall at the intersection of Washington and Pearl Streets. Such a development will create parking demands in this area both for short-time and all-day parking. The consultant has studied the situation, and recommends the acquisition of two land parcels on the northwest corner of Washington and Pearl Streets providing approximately 145' frontage on Washington and 244' frontage on

Pearl Street. The area will provide parking for 129 cars.

Physical and financial details are not included in this report, as these will be subject to change as the entire project develops. The Parking Authority will undoubtedly cooperate with other agencies of the City in developing the overall plan for this area, and the consultant will assist as needed.